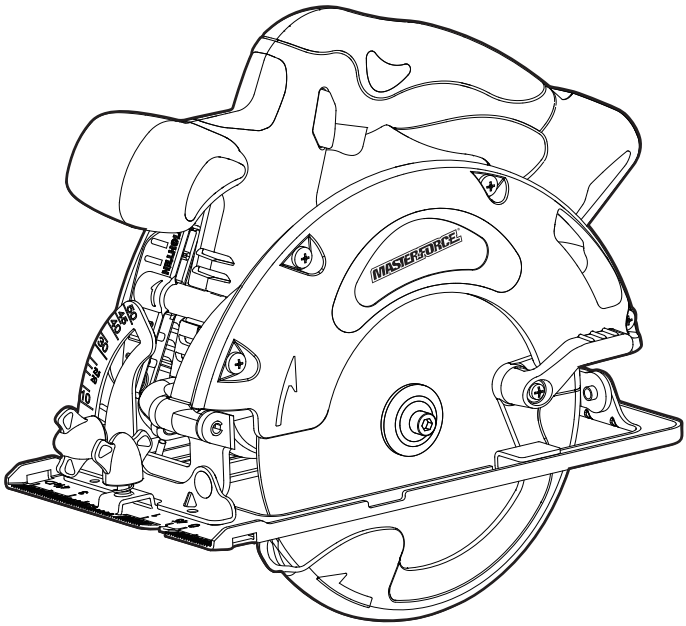
MASTER FORCE®

FLEXPOWER®

CHOOSE YOUR TOOL. CHOOSE YOUR POWER.

20 Volt Circular Saw



241-0428

OPERATOR'S MANUAL

⚠ CAUTION: To Reduce The Risk Of Injury, User Must Read And Understand The Operator's Manual. Save These Instructions For Future Reference.

For questions / comments, technical assistance or repair parts – Please Call Toll Free: 1-866-917-4374. (M-F 8am – 6pm EST.)

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SAFETY SYMBOLS

Some of these following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and more safely.

Symbol	Name	Designation / Explanation
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
Min	Minutes	Time
∿	Alternating current	Type of current
⎓	Direct current	Type of characteristic of current
n_o	No-load speed	Rotational speed at no load
⧈	Class II construction	Double insulated construction
.../min	Per minute	Revolutions, strokes, surface speed orbits, etc., per minute
	Wear safety goggles	**⚠ WARNING: The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.**

⚠ WARNING: To ensure safety and reliability, all repairs should be performed by a qualified service technician.

SAFETY INSTRUCTIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

⚠ WARNING: Be sure to read and understand all safety instructions in this manual, including all safety alert symbols such as "DANGER," "WARNING," and "CAUTION" before using this tool. Failure to following all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANING

SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or pictographs.

⚠ DANGER: Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.

⚠ WARNING: Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE: (Without Safety Alert Symbol) Indicates a situation that may result in property damage.

SAVE THESE INSTRUCTIONS!

SAFETY INSTRUCTIONS

⚠WARNING: Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and / or serious injury.
Save all warnings and instructions for future reference.
The term power tool in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

⚠WARNING: Risk of fire and electric shock. Dry location use only. Do not expose to rain. Risk of injury.

WORK AREA SAFETY

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

1. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
2. **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep the cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
5. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
6. **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of a GFCI reduces the risk of electric shock.

PERSONAL SAFETY

1. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
2. **Use personal protective equipment.** Always wear eye protection. Protective equipment such as a dust mask, non-skid safety shoes, hard hat, or hearing protection, used for appropriate conditions, will reduce personal injuries.
3. **Prevent unintentional starting.** Ensure that the switch is in the off-position before connecting to power source and / or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.

4. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
5. **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
6. **Dress properly.** Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
7. **If devices are provided for the connection of dust extraction and collection facilities, ensure that these are connected and properly used.** Use of these devices can reduce dust-related hazards.

USE AND CARE OF THE POWER TOOLS

1. **Do not force the power tool.** Use the correct power tool for your application. The correct power tool will do the job better and more safely at the rate for which it was designed.
2. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
5. **Maintain power tools.** Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **Use the power tool, accessories, tool bits etc., in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

BATTERY TOOL USE AND CARE

1. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **When the battery pack is not in use, keep it away from other metal objects, such as paper clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
4. **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water.** If liquid contacts eyes, also seek medical help. Liquid ejected from the battery may cause irritation or burns.

SAFETY INSTRUCTIONS

SERVICE

1. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

SPECIFIC SAFETY RULES FOR CIRCULAR SAWS

1. **Danger**

a) **Keep hands away from cutting area and blade. Keep your second hand on auxiliary handle, or motor housing.** If both hands are holding the saw, they cannot be cut by the blade.

b) **Do not reach underneath the work piece.** The guard cannot protect you from the blade below the work piece.

c) **Adjust the cutting depth to the thickness of the work piece..** Less than a full tooth of the blade teeth should be visible below the work piece.

d) **Never hold piece being cut in your hands or across your leg. Secure the work piece to a stable platform.** It is important to support the work properly to minimize body exposure, blade binding, or loss of control.

e) **Hold power tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a 'live' wire will also make exposed metal parts of the power tool 'live' and shock the operator.

f) **When ripping always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance of blade binding.

g) **Always use blades with correct size and shape (diamond versus round) of arbor holes.** Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.

h) **Never use damaged or incorrect blade washers or bolt.** The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

2. **Causes and operator prevention of kickback**

a) kickback is sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator;

b) when the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;

c) if the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface if the wood causing the blade to climb out the kerf and jump back toward the operator.

3. Kickback is the result of saw misuse and/or incorrect operation procedures or conditions and can be avoided by taking proper precautions as given below.

a) **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.** Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.

b) **When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.** Investigate and take corrective actions to eliminate the cause of blade binding.

c) **When restarting a saw in the work piece, centre the saw blade in the kerfs and check that saw teeth are not engaged into the material.** If saw blade is binding, It may walk up or kickback from the work piece as the saw is restarted.

d) **Support large panels to minimize the risk of blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.

e) **Do not use dull or damaged blades.** Unsharpened or improperly set blades produce narrow kerfs causing excessive friction, blade binding and kickback.

f) **Blade depth and bevel adjusting locking levers must be tight and secure before making cut.** If blade adjustment shifts while cutting, it may cause binding and kickback.

g) **Use extra caution when making a 'plunge cut' into existing walls or other blind areas.** The protruding blade may cut objects that can cause kickback.

4. **Safety instructions for saws with inner pendulum guard**

a) **Check lower guard for proper closing before each use. Do not operate the saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.** If saw is accidentally dropped, lower guard may be bent. Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.

b) **Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.** Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.

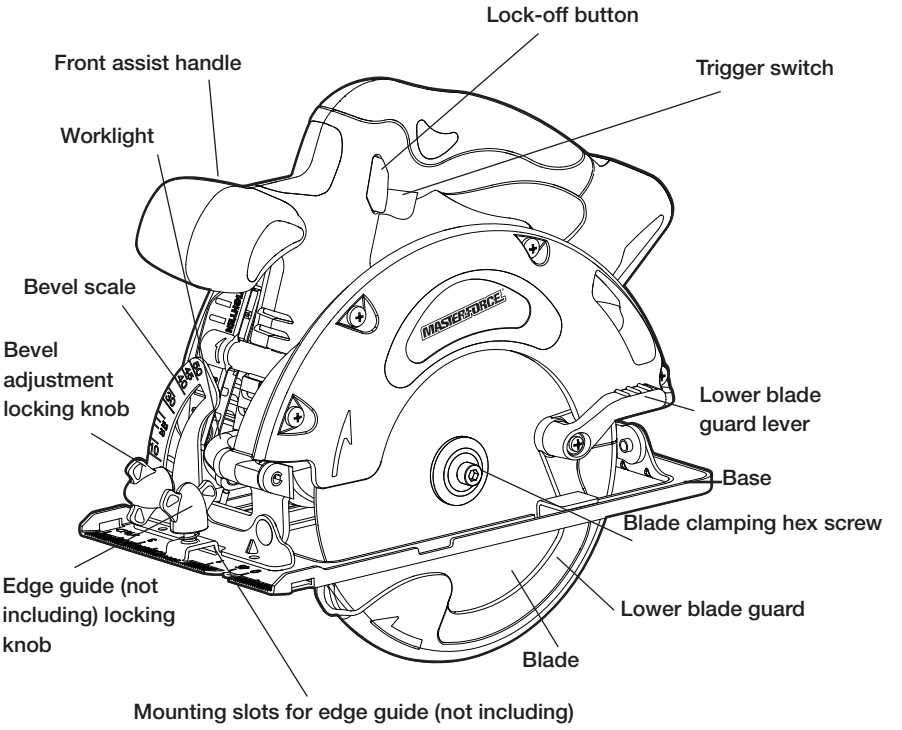
c) **Lower guard should be retracted manually only for special cuts such as' plunge cuts' and 'compound cuts' .Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released.** For all other sawing, the lower guard should operate automatically.

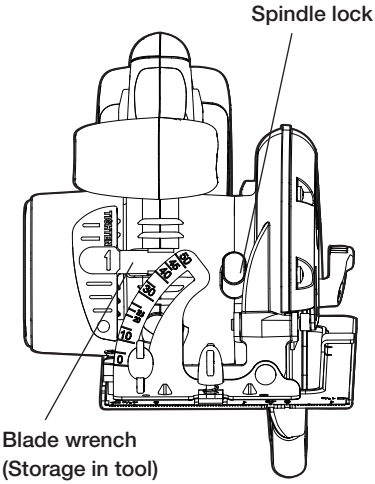
Always observe that the lower guard is covering the blade before placing saw down on bench or floor. An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be ware of the time it takes for the blade to stop after switch is released.

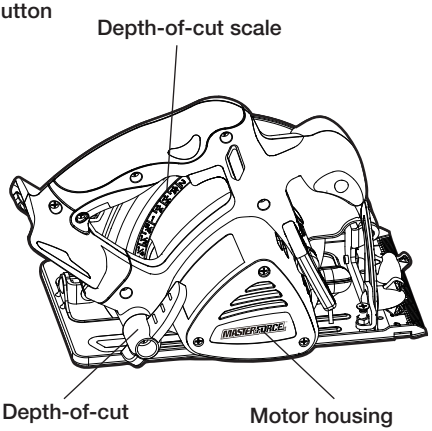
5. **Use only with battery and charger listed below.**

Battery pack	Charger
252-8024	
252-8029	
252-8030	252-8036
252-8031	252-8037
252-8032	252-8044
252-8033	
252-8034	

OVERVIEW


Lock-off button
Front assist handle
Trigger switch
Worklight
Bevel scale
Bevel adjustment locking knob
Lower blade guard lever
Base
Blade clamping hex screw
Edge guide (not including) locking knob
Lower blade guard
Blade
Mounting slots for edge guide (not including)


Spindle lock button
Blade wrench (Storage in tool)


Depth-of-cut scale
Depth-of-cut adjustment lever
Motor housing

SPECIFICATIONS

PRODUCT SPECIFICATIONS	
No load Speed	4500RPM
Blade Diameter	6-1/2-in. (165mm)
Blade Arbor	5/8 in. (16mm)
Cutting Depth at 90°	2-1/8-in.
Cutting Depth at 45°	1-3/4-in.
Maximum Bevel Angle	Adjustable 0-50°
Tool weight (without battery)	5lbs. 10oz.

ASSEMBLY

PLASTIC UPPER AND LOWER BLADE GUARD WITH ANTI-SNAG FEATURE

Lightweight blade guards provide protection from the blade. The self-retracting lower blade guard features an anti-snag design for more efficient cutting.

ELECTRIC BRAKE

The saw has an electric brake to quickly stop the blade from rotating.

0° TO 50° BEVEL ADJUSTMENT

The bevel adjustment knob allows you to set the circular saw for bevel cuts from 0° to 50°.

LED WORKLIGHT

The fixed-position LED worklight, located on the front of the saw, allows better cut-line visibility.

INTEGRATED RIP AND CROSSCUT RULER

The base has integrated rip and crosscut rulers for quick reference when making repetitive cuts.

HEX KEY STORAGE

The blade screw hex key is conveniently stored on board, at the front of the motor housing.

ASSEMBLY

ERGONOMIC DESIGN

The design of the saw allows proper two hand control when cutting. It has been designed to be comfortable and easy to grasp.

SPINDLE LOCK BUTTON

The spindle lock button allows you to secure the blade when turning the blade screw.

LOCK-OFF BUTTON

The lock-off button reduces the possibility of accidental starting. The button can be used on either the left or right of the trigger switch.

DEPTH ADJUSTMENT LEVER

The depth adjustment lever adjusts the cutting capacity of 0 to 2-1/8-in. at 90° and 0 to 1-3/4-in. at 45°.

⚠ WARNING: If any part is broken or missing, do not attempt to plug in the power cord or operate the tool until the broken or missing part is replaced. Failure to do so could result in possible serious injury.

⚠ WARNING: Do not attempt to modify this circular saw or create accessories not recommended for use with this saw. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury.

⚠ WARNING: To prevent accidental starting that could cause serious personal injury, always remove the battery pack from the circular when assembling parts.

UNPACKING

This product has been shipped completely assembled.

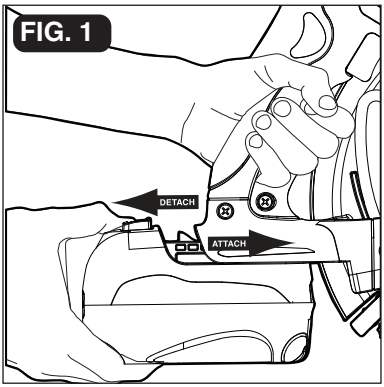
1. Carefully remove the tool and any accessories from the box. Make sure that all items listed in the packing list are included.
2. Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
3. Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.

CONTENTS

6-1/2-in.Circular saw, Hex wrench and Operator's manual

OPERATION

TO ATTACH BATTERY PACK (FIG. 1)



NOTICE: Use with the battery pack listed on page 8 only.

1. Make sure that the circular saw is "OFF"
2. Align the raised rib on the battery pack with the grooves on the bottom of the saw, and then attach the battery pack to the saw.

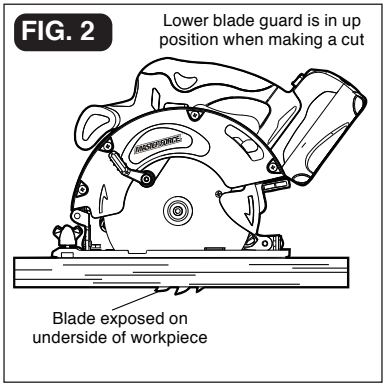
NOTICE: Make sure that the latch on the battery pack snaps into place and the battery pack is secured to the tool before beginning operation.

TO DETACH BATTERY PACK (FIG. 1)

1. Lock the trigger switch on the saw by placing the direction of rotation (forward/ reverse/ center lock) selector in center position.
2. Depress the battery release buttons located on the front of the battery pack to release the battery pack.
3. Pull forward on the battery pack to remove from the tool.

⚠ CAUTION: when placing battery pack on the tool, be sure that the raised rib on the battery pack aligns with the groove on the saw and that the latches snap into place properly. Improper assembly of the battery pack can cause damage to internal components.

BLADE GUARD SYSTEM (FIG. 2)



The lower blade guard attached to your saw is there for your protection and safety. It should never be altered for any reason. If it becomes damaged or begins to return slowly, do not operate the saw until the damaged guard has been repaired or replaced. Always leave the blade guard in operating position when using the saw.

⚠ DANGER: When sawing through a workpiece, the lower blade guard does not cover the blade on the underside of the workpiece. Since the blade is exposed on the underside of the workpiece, keep hands and fingers away from the cutting area. Any part of your body coming in contact with the moving blade will result in serious injury.

⚠ CAUTION: Never use the saw when the blade guard is not operating correctly. Check the guard for correct operation before each use. The guard is operating correctly when it moves freely and readily returns to the closed position. If you drop the saw, check the lower blade guard and bumper for damaged at all depth-of-cut settings before reuse.

OPERATION

⚠ WARNING: **When using the saw, always stay alert and exercise control. Do not remove the saw from the workpiece while the blade is moving.**

⚠ WARNING: **A 6 1/2-inch blade is the maximum blade capacity of your saw. A blade larger than 6 1/2-inch will come in contact with the blade guards. Also, NEVER use a blade that is so thick that it prevents the outer blade washer from engaging with the flat side of the spindle. Blades that are too large or too thick can result in an accident causing serious injury.**

SAW BLADES

All saw blades need to be kept clean, sharp and properly set in order to cut efficiently. Using a dull blade places a heavy load on the saw and increases the danger of kickback. Keep extra blades on hand, so sharp blades are always available. Gum and wood pitch hardened on the blade slows the saw down. Use gum and pitch remover, hot water or kerosene to remove them. Do not use gasoline.

KICKBACK (FIG. 3 - FIG. 6)

FIG. 3

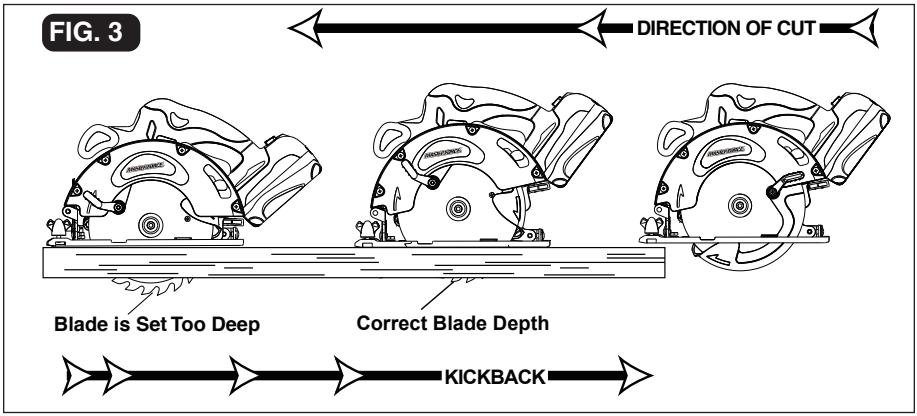


FIG. 4

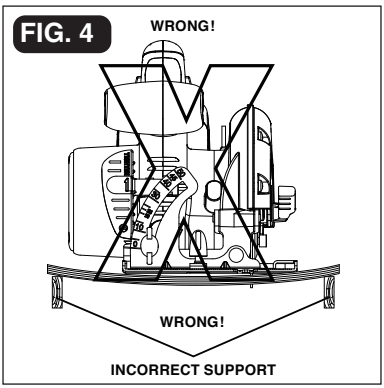


FIG. 5

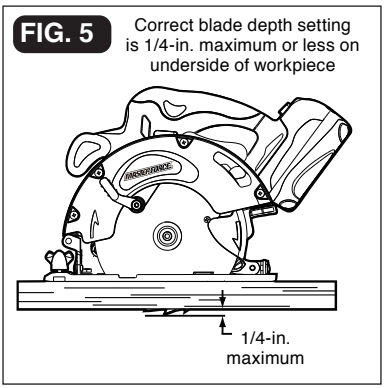
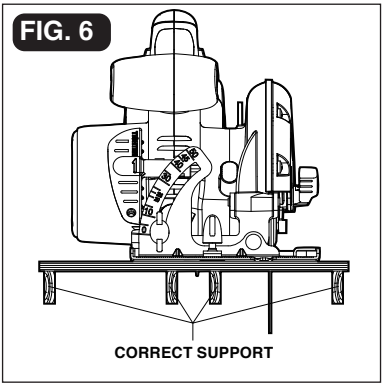


FIG. 6



Kickback occurs when the blade stalls rapidly and the saw is driven back towards you. Blade stalling is caused by any action which pinches the blade in the wood.
To guard against kickback, avoid dangerous practices such as the following:

1. Setting blade depth incorrectly.
2. Sawing into knots or nails in the workpiece.
3. Twisting the blade while making a cut.
4. Making a cut with a dull, gummed up or improperly set blade.
5. Supporting the workpiece incorrectly. (See Fig.3)
6. Forcing a cut.
7. Cutting warped or wet lumber.
8. Operating the tool incorrectly or misusing the tool.
9. Attempting to cut with blade at less than full speed.

⚠ WARNING: If the blade comes in contact with the workpiece before it reaches full speed, it could cause the saw to "kickback" towards you, which could result in serious injury.

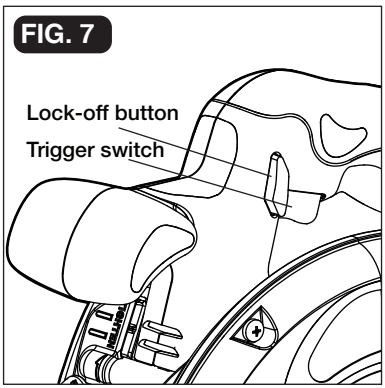
TO LESSEN THE CHANCE OF KICKBACK, AVOID DANGEROUS PRACTICES SUCH AS THE FOLLOWING:

1. Keep the blade at the correct depth setting. The depth setting should not exceed 1/4 linch below the material being cut.
2. Inspect the workpiece for knots or nails before cutting. Never saw into a knot or nail.
3. Make straight cuts. Always use a straight edge guide when rip cutting. This helps prevent twisting the blade.
4. Use clean, sharp and properly set blades. Never make cuts with dull blades.
5. Support the workpiece properly before beginning a cut.
6. Use steady, even pressure when making a cut. Never force a cut.
7. Do not cut warped or wet lumber
8. Hold the saw firmly with both hands and keep your body in a balanced position so as to resist the forces if kickback should occur.

⚠ WARNING: To avoid kickback, release the switch trigger immediately if the blade binds or the saw stalls. Kickback could cause you to lose control of the saw. Loss of control can lead to serious injury.

LOCK-OFF BUTTON (FIG. 7)

FIG. 7



The lock-off button reduces the possibility of accidental starting. The lock-off button is located on the handle above the trigger switch. The lock-off button must be depressed before you squeeze the trigger switch.
NOTICE: The lock-off button can be operated from either the left or right side.

OPERATION

STARTING/STOPPING THE SAW (FIG. 7)

To start the saw:

1. Depress the lock-off button.
2. Depress the trigger switch. Always let the blade reach full speed, then guide the saw into the workpiece.

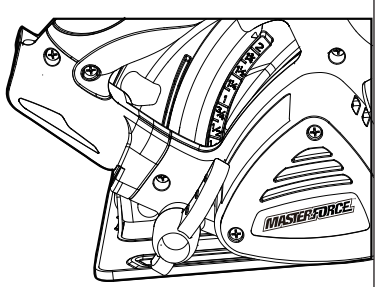
To stop the saw:

Release the trigger switch.

After you release the trigger switch, allow the blade to come to a complete stop. Do not remove the saw from the workpiece while the blade is moving.

DEPTH OF CUT ADJUSTMENTS (FIG. 8)

FIG. 8



Always keep the correct blade depth setting. The correct blade depth setting for all cuts should not exceed 1/4 inch below the material to be cut. Excess blade depth will increase the chance of kickback and cause the cut to be rough. One blade tooth below the material to be cut works best for efficient cutting action.

TO ADJUST BLADE DEPTH

1. Remove the battery pack from the saw.
2. Loosen the depth-of-cut adjustment lever.
3. Determine the desired depth of cut.
4. Hold the base of the saw flat against the edge of the workpiece and then raise or lower the saw until the indicator mark on the bracket aligns with the desired depth-of-cut mark.
5. Tighten depth-of-cut adjustment lever securely.

OPERATING THE SAW (FIG. 9- FIG. 10)

FIG. 9

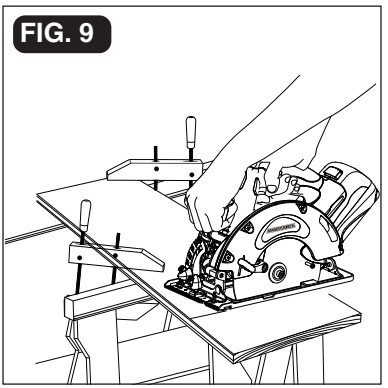
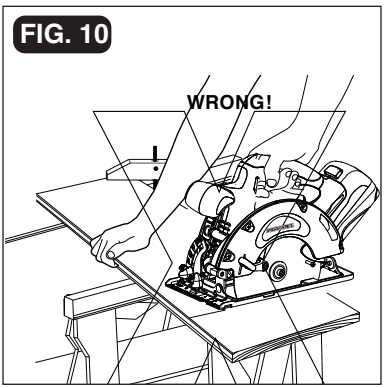


FIG. 10



It is important to understand the correct method for operating the saw. Refer to the figures in this section to learn the correct and incorrect ways for handling the saw.

OPERATION

⚠ DANGER: When lifting the saw from the workpiece, the blade is exposed on the underside of the saw until the lower blade guard closes. Make sure the lower blade guard is closed before setting the saw down.

⚠ WARNING: To make sawing easier and safer, always maintain proper control of the saw. Loss of control could cause an accident resulting in possibly serious injury.

⚠ WARNING: Always clamp and support the workpiece securely. Always maintain proper control of the saw. Failure to clamp and support the workpiece and loss of control of the saw could result in serious injury.

To make the best possible cut:

1. Hold the saw firmly with both hands.
2. Avoid placing your hand on the workpiece while making a cut.
3. Support the workpiece so that the cut (kerf) is always to your side.
4. Support the workpiece near the cut.
5. Clamp the workpiece securely so that the workpiece will not move during the cut.
6. Always place the saw weight on the portions of the workpiece that is supported, not on the "cut off" piece.
7. Place the workpiece with the "good" side down.

NOTICE: The good side of the workpiece is the side where appearance is important.

8. Draw a guideline along the desired line of cut before beginning your cut.

NOTICE: Do not touch the blade to the workpiece until the saw has reached maximum speed.

⚠ WARNING: If the blade comes in contact with the workpiece before it reaches full speed, it could cause the saw to "kickback" towards you, which could result in serious injury.

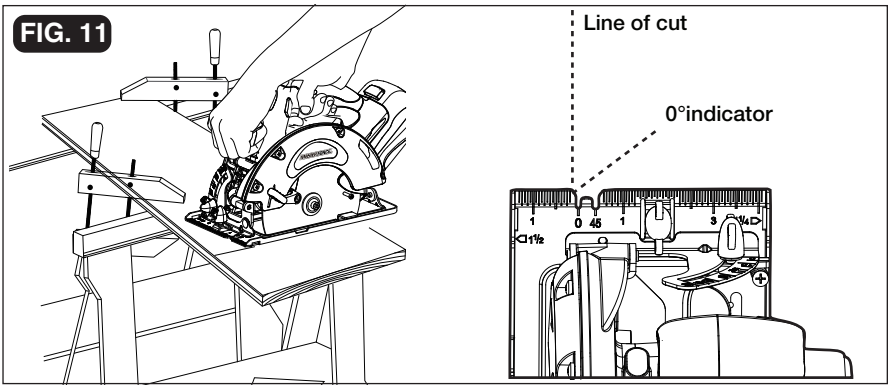
⚠ WARNING: ALWAYS clamp and support workpiece securely. ALWAYS maintain proper control of saw. Failure to clamp and support workpiece and loss of control of saw could result in serious injury.

INTEGRATED RIP AND CROSSCUT RULERS

NOTICE: The distance from the line of cut to the guideline is the amount you should offset the guide.

MAKING CROSS CUTS AND RIP CUTS (FIG. 11)

FIG. 11



OPERATION

Marked along the base across the front of the saw is a ruler for measuring repetitive cuts. It is marked 1-1/2 inches to the left of the 0° mark and 4-1/4 inches to the right of 45° mark in 1/16-inch increments.

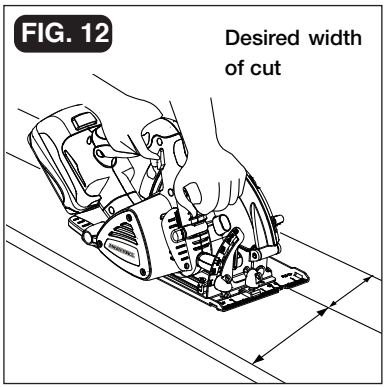
When making a cross cut or rip cut, align your line of cut with the left side of the notch by the 0^0 indicator. Since blade thicknesses vary, always make a trial cut in scrap material along a guideline to determine how much, if any, the guideline must be offset to produce an accurate cut.

NOTICE: Do not bind the blade in the cut. It could cause the saw to "kickback" towards you, which could result in serious injury.

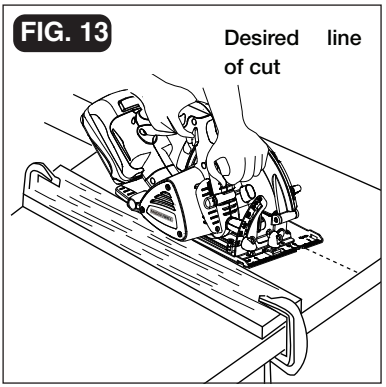
⚠ WARNING: If the blade comes in contact with the workpiece before it reaches full speed, it could cause the saw to "kickback" towards you, which could result in serious injury.

MAKING RIP CUTS

The combination blade provided with your saw is for both cross cuts and rip cuts. Ripping is cutting lengthwise with the grain of the wood (Fig.12).



When rip cutting large sheet, use a straight edge (Fig.13).



1. Secure the workpiece.
2. Clamp a straight edge to the workpiece using C-clamps.
3. Carefully guide the saw along the straight edge to achieve a straight rip cut.

⚠ WARNING: ALWAYS clamp and support workpiece securely. ALWAYS maintain proper control of saw. Failure to clamp and support workpiece and loss of control of saw could result in serious injury.

BEVEL CUTTING

The angle of cut can be adjusted to any desired setting between 0°and 50°.

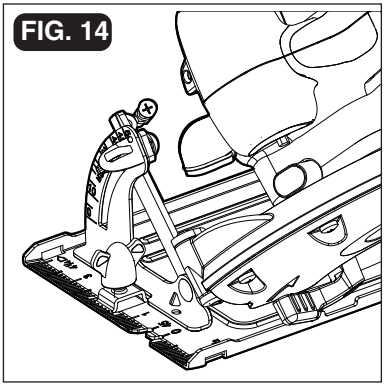
NOTICE: When making 50° bevel cuts, the blade should be set at full depth of cut.

Since blade thicknesses vary and different angles require different settings, always make a trial cut in scrap material along a guideline to determine how much you should offset the guideline on the workpiece to be cut.

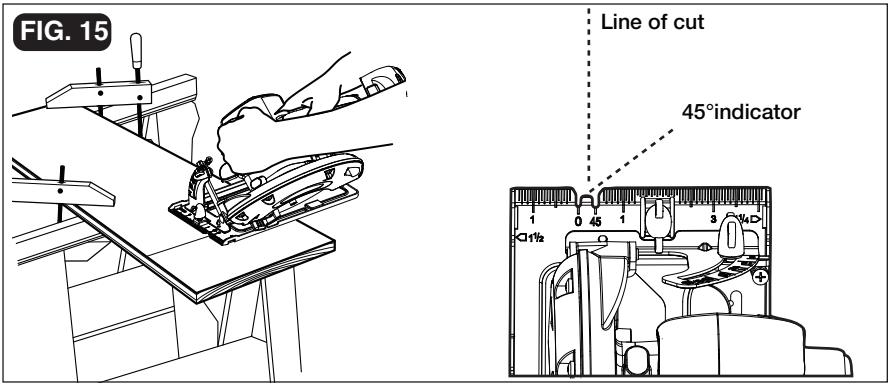
OPERATION

TO ADJUST BEVEL SETTING (FIG. 14)

1. Remove the battery pack from the saw.
2. Loosen the bevel adjustment knob by rotating the knob counterclockwise.
3. Tilt the base until the bevel indicator reaches the desired setting on the bevel scale (0°-50°).
4. Tighten the bevel adjustment knob by rotating the knob clockwise.



MAKING A BEVEL CUT (FIG. 15)



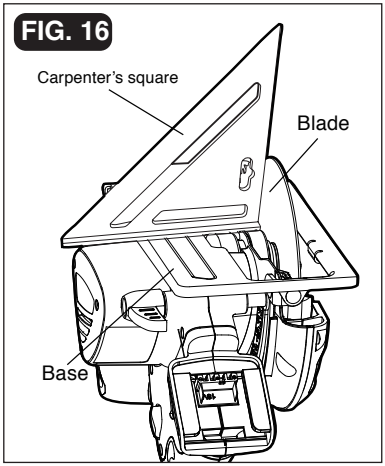
1. Secure workpiece with clamps. When making a bevel cut, hold the saw firmly with both hands.
2. Rest the front edge of the base on the workpiece. Depress the lock-off button and squeeze the trigger switch to start the saw. Allow the saw to reach full speed before attempting to make a cut.
3. After completing the cut, release the trigger switch and allow the blade to come to a complete stop. After the blade has stopped, remove the saw from the workpiece.
4. When making 45° bevel cuts, there is a notch in the saw base to help you line up the blade with the line of cut. Align your line of cut with the right side of the notch by the 45° indicator.

⚠ WARNING: Attempting bevel cut without bevel adjusting locking knob tightened can result in serious injury.

0° BEVEL STOP

The saw has a 0° bevel stop has been adjusted before shipment to assure that the blade is vertical to the base at 0°bevel cutting.

TO CHECK 0° BEVEL STOP (FIG. 16)

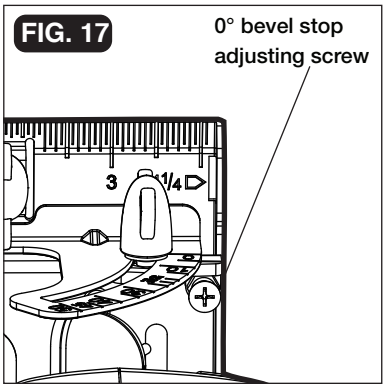


1. Remove battery pack from the saw.

⚠ WARNING: Always remove the battery pack from the tool when assembling parts, changing blades and making adjustments. Failure to obey this warning could cause serious personal injury.

2. Using a carpenter's square, check the squareness of the saw blade to the base of the saw.

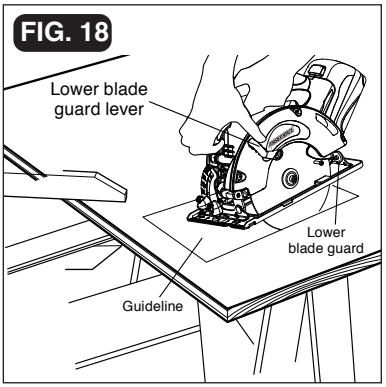
TO ADJUST 0° BEVEL STOP (FIG. 17)



1. Remove the battery pack from the saw.
2. Loosen the bevel adjustment knob.
3. Place the saw in an upside-down position on a workbench.
4. Using a Philips-screwdriver, turn the 0°bevel stop adjusting screw until the base is square with the saw blade.

⚠ WARNING: Attempting to make cuts without the bevel adjustment knob securely tightened can result in serious injury.

POCKET CUTTING (FIG. 18)



⚠ WARNING: Always adjust the bevel setting to zero before making a pocket cut. Attempting a pocket cut at any other setting can result in a loss of control of the saw, which can result in serious injury.

1. Remove the battery pack from the saw.
2. Adjust the bevel setting to zero.
3. Set the blade to the correct blade depth setting.
4. Place battery pack in saw.
5. Swing the lower blade guard up using the lower blade lever.

NOTICE: Always raise the lower blade guard with the lever to avoid serious injury.

6. Hold the lower blade guard up by the lever.

OPERATION

7. Rest the front of the saw base flat against the workpiece with the rear handle raised so the blade does not touch the workpiece.
8. Start the saw and let the blade reach full speed.
9. Guide the saw into the workpiece and make the cut.

⚠ WARNING: Always cut in a forward direction when making a pocket cut. Cutting in reverse direction could cause the saw to climb up on the workpiece and back toward you, possibly causing serious injury.

10. Release the trigger switch and allow the blade to come to a complete stop.
11. Lift the saw from the workpiece.
12. Clear corners out with a hand saw or saber saw.

⚠ WARNING: Never tie the lower blade guard in the raised position. Leaving the blade exposed could result in serious injury

MAINTENANCE

⚠ WARNING: To ensure safety and reliability, all repairs should be performed by a qualified service technician at an Authorized Service Center.

⚠ WARNING: For your safety, always turn off switch and unplug circular saw from the power source before performing any maintenance or cleaning.

It has been found that power tools are subject to accelerated wear and possible premature failure when they are used to work on fiber glass boats and sports cars, wallboard, spackling compounds or plaster. The chips and grindings from these materials are highly abrasive to power tool parts, such as bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiberglass material, wallboard, spackling compound or plaster. During any use on these materials, it is extremely important that the tool is cleaned frequently by blowing with an air jet.

⚠ WARNING: Always wear safety goggles or safety glasses with side shields during power tool operations, or when blowing dust. If operation is dusty, also wear a dust mask.

GENERAL MAINTENANCE

The tool may be cleaned most effectively with compressed dry air. Always wear safety goggles when cleaning tools with compressed air.

⚠ WARNING: When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage. To ensure safety and reliability, all repairs should be performed by a qualified service technician at an Authorized Service Center.

⚠ WARNING: Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic, which may result in serious personal injury. Periodic maintenance allows for long life and trouble-free operation. A cleaning and maintenance schedule should be maintained. As a common preventive maintenance practice, follow these recommended steps:

1. When work has been completed, clean the tool to allow smooth functioning of the tool over time.
2. Use clean damp cloths to wipe the tool.
3. Check the state of all electrical cables.
4. Keep the motor air openings free from

oil, grease and sawdust or woodchips, and store tool in a dry place.

5. Be certain that all moving parts are well lubricated, particularly after lengthy exposure to damp and/or dirty conditions.

LUBRICATION

All of the bearings in this tool are lubricated with a sufficient amount of high-grade lubricant for the life of the tool under normal operating conditions. Therefore, no further lubrication is required.

CHANGING THE BLADE (FIG. 19)

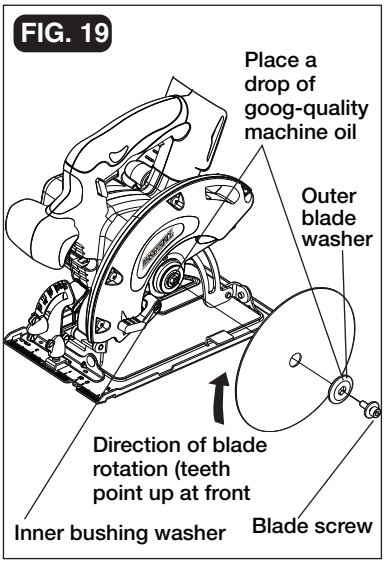


FIG. 19
Place a drop of goog-quality machine oil
Outer blade washer
Direction of blade rotation (teeth point up at front
Inner bushing washer
Blade screw

⚠ WARNING: A 6 1/2-in. blade is the maximum blade capacity of the saw. Use only 6 1/2-in. blades when replacing worn or damaged blades. Never use a blade that is too thick to allow the outer blade washer to engage with the flats on the spindle. Thicker blade will prevent blade screw from securing blade on spindle, resulting in serious personal injury.

⚠ WARNING: Be sure to wear protective work gloves while handling a saw blade. The blade can injure unprotected hands.

1. Remove battery pack from the saw.
2. Loosen the depth of cut adjustment lever. Raise the saw to the maximum height and tighten the depth of cut adjustment lever.
3. Locate and remove the hex key from the storage area.
4. Depress the spindle lock button, place hex key in the blade screw and move the hex key back and forth until you feel the spindle lock button depress further. This action locks the blade in position so the blade screw can be removed. With the spindle lock button firmly depressed, turn the blade screw clockwise to remove.
5. Raise the lower blade guard using the blade guard lever and hold it in the raised position.
6. Remove the blade screw and the outer blade washer and the blade.
7. The remaining washer is the inner bushing washer that fits around the spindle shaft and does not need to be removed.
8. Put a drop of good-quality machine oil onto the inner bushing washer and outer blade washer where they will contact the blade.
9. Place a new saw blade inside the lower blade guard, onto the spindle shaft and against the inner bushing washer.

NOTICE: The teeth of the blade should point upward at the front of the saw.

10. Replace outer blade washer.
11. Depress and hold spindle lock button as you replace the blade screw and hand tighten the screw in a counterclockwise direction. Use the hex key to tighten the blade screw securely.
12. Return hex key into the storage area.

NOTICE: Never use a blade that is too thick to allow the outer blade washer to engage with the flat side of the spindle.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The blade does not follow a straight line:	Teeth are dull. This is caused by hitting a hard object such as a nail, dulling teeth on one side. The blade tends to cut to the side with the sharpest teeth.	Change a new blade
	Base is out of line or bent.	Repair the tool by a qualified authorized Service Center
	Blade is bent.	Change a new blade
The blade binds or smokes from friction:	.Blade is dull.	Sharpen or Change a new blade
	Blade is on backwards	Reassemble the blade correctly
	Blade is bent.	Change a new blade
	Incorrect blade is being used.	Use a suitable blade
	Workpiece is not properly supported.	Clamp the workpiece firmly

20 VOLT CIRCULAR SAW

WARRANTY

90-DAY MONEY BACK GUARANTEE:

This MASTERFORCE® brand power tool carries our 90-DAY Money Back Guarantee. If you are not completely satisfied with your MASTERFORCE® brand power tool for any reason within ninety (90) days from the date of purchase, return the tool with your original receipt to any MENARDS® retail store, and we will provide you a refund – no questions asked.

3-YEAR LIMITED WARRANTY:

This MASTERFORCE® brand power tool carries our famous No Hassle 3-Year Limited Warranty to the original purchaser. If, during normal use, this MASTERFORCE® power tool breaks or fails due to a defect in material or workmanship within three (3) years from the date of original purchase, simply bring this tool with the original sales receipt back to your nearest MENARDS® retail store. At its discretion, MASTERFORCE® agrees to have the tool or any defective part(s) repaired or replaced with the same or similar MASTERFORCE® product or part free of charge, within the stated warranty period, when returned by the original purchaser with original sales receipt. Not withstanding the foregoing, this limited warranty does not cover any damage that has resulted from abuse or misuse of the Merchandise. This warranty: (1) excludes expendable parts including but not limited to blades, brushes, belts, bits, light bulbs, and/or batteries; (2) shall be void if this tool is used for commercial and/or rental purposes; and (3) does not cover any losses, injuries to persons/property or costs. This warranty does give you specific legal rights and you may have other rights, which vary from state to state. Be careful, tools are dangerous if improperly used or maintained. Seller's employees are not qualified to advise you on the use of this Merchandise. Any oral representation(s) made will not be binding on seller or its employees. The rights under this limited warranty are to the original purchaser of the Merchandise and may not be transferred to any subsequent owner. This limited warranty is in lieu of all warranties, expressed or implied including warranties or merchantability and fitness for a particular purpose. Seller shall not be liable for any special, incidental, or consequential damages. The sole exclusive remedy against the seller will be for the replacement of any defects as provided herein, as long as the seller is willing or able to replace this product or is willing to refund the purchase price as provided above. For insurance purposes, seller is not allowed to demonstrate any of these power tools for you.

For questions / comments, technical assistance or repair parts – Please Call Toll Free at: **1-866-917-4374.** (M-F 8am – 6pm EST)

SAVE YOUR RECEIPTS
THIS WARRANTY IS VOID WITHOUT THEM

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